



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-1301; Project Identifier MCAI-2021-01447-T]**

**RIN 2120-AA64**

### **Airworthiness Directives; Viking Air Limited (Type Certificate Previously Held by Bombardier, Inc.; Canadair Limited) Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 96-12-11, which applies to all Canadair Model CL-215-1A10 airplanes. AD 96-12-11 requires repetitive inspections to detect discrepancies of the microswitches fitted at the water door actuator; replacement of any discrepant microswitch; and modification of the water door actuator switches, which terminates the repetitive inspections. Since the FAA issued AD 96-12-11, it has determined that the corrective actions of that AD have not been effective at mitigating the risk of uncommanded opening of the water doors. This proposed AD would continue to require the modification of the water door actuator switches. This proposed AD would also require modification of the water door solenoid valve common grounds, add airplanes to the applicability, and prohibit installing certain water door solenoid valve selector assemblies. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Viking Air Limited, 1959 de Havilland Way, Sidney, British Columbia V8L 5V5, Canada; telephone +1-250-656-7227; fax +1-250-656-0673; email [acs-technical.publications@vikingair.com](mailto:acs-technical.publications@vikingair.com); Internet [vikingair.com](http://vikingair.com). You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2022-1301; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; email [9-avs-nyacos@faa.gov](mailto:9-avs-nyacos@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

## **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-1301; Project Identifier MCAI-2021-01447-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

## **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; email 9-avs-

nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA issued AD 96-12-11, Amendment 39-9653 (61 FR 28734, June 6, 1996) (AD 96-12-11), for all Canadair Model CL-215-1A10 airplanes. AD 96-12-11 requires repetitive inspections to detect discrepancies of the microswitches fitted at the water door actuator, replacement of any discrepant microswitch, and a terminating action for the repetitive inspections. AD 96-12-11 resulted from a report indicating that the water doors on one airplane opened inadvertently during flight, due to corrosion of the microswitches fitted to the water door actuator. The FAA issued AD 96-12-11 to address a possible uncommanded opening of the water doors, especially at high speed during a takeoff run, a water pick-up run, or a landing run, which could cause serious damage to the airplane.

## **Actions Since AD 96-12-11 Was Issued**

Since the FAA issued AD 96-12-11, it has been determined that mandating the modification of the water door actuator microswitches, in lieu of the previous repetitive inspections, will provide a more robust water door design that will better mitigate the risk of uncommanded water door opening. Also, it has been determined that modifying the water door solenoid valve common grounds will mitigate the risk of corroded or contaminated electrical contact leading to a sneak path and subsequent uncommanded opening of the water doors.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2021-51, dated December 21, 2021 (TCCA AD CF-2021-51) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Viking Air Limited Model CL-215-1A10 and CL-215-6B11 (CL-215T Variant) airplanes. You may examine

the MCAI in the AD docket on the Internet at regulations.gov by searching for and locating Docket No. FAA-2022-1301.

This proposed AD was prompted by reports of uncommanded opening of the water doors during flight and water scooping. The FAA is proposing this AD to address the uncommanded opening of water doors, which, at high speed during the take-off run, water pick-up run, or landing run, could cause serious damage to the airplane. See the MCAI for additional background information.

### **Related Service Information under 1 CFR Part 51**

Viking Air Limited has issued Viking Service Bulletin 215-389, Revision 2, dated September 21, 2021. This service information describes procedures for modifying the water door actuator switches, which includes replacing the water door actuator microswitches, installing a relay channel and relays, and modifying related wiring.

Bombardier has issued Alert Service Bulletin 215-A497, dated November 16, 1998. This service information describes procedures for installing two additional water door solenoid common grounds, as well as inspecting the existing ground studs for corrosion and cleaning if necessary.

This proposed AD would also require Canadair Service Bulletin 215-389, Revision 1, dated September 30, 1991, which the Director of the Federal Register approved for incorporation by reference as of June 21, 1996 (61 FR 28734, June 6, 1996).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition

described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Proposed Requirements of this NPRM**

This proposed AD would retain certain requirements of AD 96-12-11 and add airplanes to the applicability. This proposed AD would require accomplishing the actions specified in the service information described previously. This proposed AD would also prohibit installing certain water door solenoid valve selector assemblies.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 6 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

#### **Estimated costs for required actions**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Retained actions from AD 96-12-11	40 work-hours X \$85 per hour = \$3,400	\$10,038	\$13,438	\$80,628
New proposed actions	2 work-hours X \$85 per hour = \$170	\$108	\$278	\$1,668

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 96-12-11, Amendment 39-9653

(61 FR 28734, June 6, 1996); and

b. Adding the following new AD:

**Viking Air Limited (Type Certificate Previously Held by Bombardier, Inc.; Canadair Limited):** Docket No. FAA-2022-1301; Project Identifier MCAI-2021-01447-T.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected Airworthiness Directives (ADs)**

This AD replaces AD 96-12-11, Amendment 39-9653 (61 FR 28734, June 6, 1996) (AD 96-12-11).

**(c) Applicability**

This AD applies to all Viking Air Limited (Type Certificate previously held by Bombardier, Inc.; Canadair Limited) Model CL-215-1A10 and CL-215-6B11 (CL-215T Variant) airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 25, Equipment/furnishings.

**(e) Reason**

This AD was prompted by reports of uncommanded opening of the water doors during flight and water scooping. The FAA is issuing this AD to address the uncommanded opening of water doors, which, at high speed during the take-off run, water pick-up run, or landing run, could cause serious damage to the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Modification of Microswitches, with Revised Service Information**

This paragraph restates the requirements of paragraph (d) of AD 96-12-11, with revised service information. For Model CL-215-1A10 and CL-215-6B11 (CL-215T



Variant) airplanes: Within 2 years after June 21, 1996 (the effective date of AD 96-12-11), modify the water door microswitches in accordance with Canadair Service Bulletin 215-389, Revision 1, dated September 30, 1991; or Viking Service Bulletin 215-389, Revision 2, dated September 21, 2021. As of the effective date of this AD, use only Viking Service Bulletin 215-389, Revision 2, dated September 21, 2021.

**(h) New Requirement of this AD: Installation of Common Grounds**

Within 24 months after the effective date of this AD, install two new water door solenoid valve common grounds in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin 215-A497, dated November 16, 1998.

**(i) Parts Installation Prohibition**

After the effective date of this AD, the water door solenoid valve, selector assembly, part number (P/N) 362-0377, is not eligible for installation as a replacement part. Water door solenoid valve, 4-way selector valve, P/N 20P16-2, specification control drawing (SCD) 215T92392-2, or superseding part with internal back electro-motive force (EMF) protection, must be used as a replacement part.

**(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Canadair Service Bulletin 215-389, Revision 1, dated September 30, 1991, including the retrospective action for aircraft modified in accordance with Canadair Service Bulletin 215-389, Original Issue, dated November 15, 1988.

**(k) Other FAA AD Provisions**

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If

sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Viking Air Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

#### **(I) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2021-51, dated December 21, 2021, for related information. This MCAI may be found in the AD docket on the Internet at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2022-1301.

(2) For more information about this AD, contact Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

(3) For service information identified in this AD, contact Viking Air Limited, 1959 de Havilland Way, Sidney, British Columbia V8L 5V5, Canada; telephone +1-250-656-7227; fax +1-250-656-0673; email [acs-technical.publications@vikingair.com](mailto:acs-technical.publications@vikingair.com); Internet [vikingair.com](http://vikingair.com). You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on October 7, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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